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10/697,431

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Thomas Arend

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EXAMINER

CONTINO, PAUL F

ART UNIT

PAPER NUMBER

2114

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/697,431

Applicant(s)

AREND, THOMAS

Examiner

Paul Contino

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4-18, 20, 21, 24-32, 34, 36 and 37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-18, 20, 21, 24-32, 34, 36 and 37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION: Final Rejection**

*Response to Arguments*

1. Applicant's arguments with respect to claims 1, 4-18, 20-21, 24-32, 34, and 36-37 have been considered but are moot in view of the new grounds of rejection.

*Claim Objections*

2. Claim 34 is objected to because of the following informalities: line 3 states "23-32" where claim 23 has been cancelled. The Examiner recommends amending "23-32" to "24-32". Appropriate correction is required.

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 5, 8, 10, 12-18, 20-21, 26, 28, 29, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Bajpai (WO 97/15009).

As in claim 1, Bajpai discloses a computer system (*Fig. 1*) with a main system to execute an application in cooperation with a human user (*Figs. 1 and 2; page 5 lines 3-5, where processor 10 is interpreted as a main system*), the computer system comprising an auxiliary system to evaluate problems in the main system (*Figs. 1 and 5; page 9 line 22 and page 10 lines 17-21, remote processor 12*), the auxiliary system comprising the following modules:

a service module configured to collect problem related data from the main system, the problem related data representing a problem identified about data in the main system (*Fig. 5; page 10 lines 3-24, where the remote communications devices 52 and remote communications engine are interpreted collectively as a service module which receives problem related data such as symptoms and characteristics of a problem*);

an acquisition module configured to acquire knowledge representations, the knowledge representations defining solution identification rules (*Fig. 5; page 10 lines 20-27, where the expert system engine is interpreted as an acquisition module that acquires knowledge representations from databases 58 and 60*);

a knowledge module configured to store the knowledge representations (*Fig. 5; page 10 lines 25-27, databases 58 and 60*); and

an inference module configured to process problem related data with knowledge representations to identify solutions (*Fig. 5; page 10 lines 24-27, where the expert system engine is interpreted as an inference module*), the inference module forwarding the solutions through the service module to the main system (*Figs. 1 and 5; page 10 line 28 through page 11 line 20*), wherein the main system has a client/server configuration with a database, an application server, and a front-end server (*Figs. 1 and 2; databases 34,36,38, client front-end 32, server expert*

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*system 30), and wherein the auxiliary system uses the client/server configuration of the main system (page 10 line 28 through page 11 line 20, where the auxiliary system 50 uses the client/server configuration of the main system 28 to receive problem-related information to process and return to the main system), and wherein the modules of the auxiliary system are distributed such that the service module, the acquisition module, the knowledge module, and the inference module are arranged in parallel to the application server and to the database (Fig. 1).*

As in claim 5, Bajpai discloses the service module cooperates with the main system to obtain problem related data for the auxiliary system *(page 9 lines 28-29 and page 10 lines 14-15, where cooperation is inherent in order to allow for communication between the service module and the main system).*

As in claim 8, Bajpai discloses the knowledge module distinguishes contexts that are predefined sets of knowledge representations *(Fig. 3; page 7 lines 1-16, where the decision nodes are interpreted as contexts).*

As in claim 10, Bajpai discloses the knowledge module distinguishes context with primary context and secondary context, wherein the secondary context is referenced from the first context *(Fig. 3; page 7 lines 1-16, and page 10 lines 17-18 and 24-25, where the decision nodes are interpreted as contexts, a prior/parent node being a primary context and a child node being a secondary context).*

As in claim 12, Bajpai discloses the knowledge module generates solution identification rules with computer instructions to automatically solve the problem (*page 7 lines 1-4 and 11-16, and page 10 lines 17-21*).

As in claim 13, Bajpai discloses the knowledge module stores the knowledge representations in a plurality of tables in the database (*page 6 lines 21-24 and page 10 lines 1-2 and 24-27, where it is inherent that a database stores information in a table*).

As in claim 14, Bajpai discloses the auxiliary system conditionally forwards problem data to a service system (*Fig. 1 #14; page 11 lines 25-26, where the condition is whether or not a solution has been reached and the call center is interpreted as a service system*).

As in claim 15, Bajpai discloses the auxiliary system forwards the problem data to the service system with preliminary analysis data based on processing with knowledge representations in the auxiliary system (*page 12 lines 7-12*).

As in claim 16, Bajpai discloses the auxiliary system forwards problem data for further analysis by a human technician (*page 12 lines 7-12, engineer 31*).

As in claim 17, Bajpai discloses the auxiliary system forwards problem data and preliminary solutions to the service system in a format that allows evaluation in the service system (*page 12 lines 7-27*).

As in claim 18, Bajpai discloses the main system is adapted to be operated by a first customer (*page 4 lines 20-21, user is interpreted as customer*), and the service system is implemented by an expertise service provider (*Fig. 1 #14; page 4 lines 23-24 and page 12 lines 7-26*).

As in claim 20, Bajpai discloses a method to operate a computer system (*Fig. 1*) with a main system executing an application in cooperation with a human user (*Figs. 1 and 2; page 5 lines 3-5, where processor 10 is interpreted as a main system*) and an auxiliary system evaluating problems in the main system (*Figs. 1 and 5; page 9 line 22 and page 10 lines 17-21, remote processor 12*), the method comprising the following steps performed by the auxiliary system:

collecting problem related data from the main system, the problem related data representing a problem identified about data in the main system (*Fig. 5; page 10 lines 3-24, where the remote communications devices 52 and remote communications engine are interpreted collectively as a service module which receives problem related data such as symptoms and characteristics of a problem*);

acquiring knowledge representations, the knowledge representations defining solution identification rules (*Fig. 5; page 10 lines 20-27, where the expert system engine is interpreted as an acquisition module that acquires knowledge representations from databases 58 and 60*);

storing knowledge representations (*Fig. 5; page 10 lines 25-27, databases 58 and 60*);  
and

processing problem related data with knowledge representations to identify solutions, and forwarding the solutions to the main system (*Figs. 1 and 5; page 10 line 24 through page 11 line 20*), wherein the collecting, acquiring, storing, processing, and forwarding are performed in [a] client/server configuration with a database, an application server, and a front-end server (*Figs. 1 and 5; databases 58 and 60, remote communications engine front-end server 54, application server expert system engine 56*), and wherein the collecting, acquiring, storing, processing, and forwarding are performed in modules of the auxiliary system that are arranged in parallel to the main system (*Fig. 1*).

As in claim 21, Bajpai discloses collecting is performed by a service module (*Fig. 5; page 10 lines 3-24, where the remote communications devices 52 and remote communications engine are interpreted collectively as a service module*), acquiring is performed by an acquisition module (*Fig. 5; page 10 lines 20-27, where the expert system engine is interpreted as an acquisition module*); storing is performed by a knowledge module (*Fig. 5; page 10 lines 25-27, databases 58 and 60*), and processing and forwarding are executed by an inference module (*Fig. 5; page 10 lines 24-27, where the expert system engine is interpreted as an inference module*).

As in claim 26, Bajpai discloses the knowledge module classifies the knowledge representations into context groups (*Fig. 3; page 7 lines 1-16, where the decision nodes are interpreted as contexts*).



As in claim 28, Bajpai discloses the knowledge module distinguishes context with primary context and secondary context (*Fig. 3; page 7 lines 1-16, where the decision nodes are interpreted as contexts, a prior/parent node being a primary context and a child node being a secondary context*).

As in claim 29, Bajpai discloses the inference module identifies the solutions from a set of predefined advices of the application (*page 11 lines 15-16*).

As in claim 34, Bajpai discloses a computer program product stored in a computer-readable medium comprising program code means for performing all the steps of any one of the claims 20, 21, and 24-32 when the computer program product is run on a computer (*page 5 lines 1-6*).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 6, 7, 24, 25, 36, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bajpai in view of Cha et al. (WO 01/18652 A1).

As in claim 4, Bajpai teaches of a service module, a main system, an auxiliary system, and service function interaction between the listed elements. However, Bajpai fails to teach explicitly of basis service functions. Cha et al. teaches of basis service functions (*page 11 lines 18-24, where it is inherent in an SAP R/3 system to utilize basis service functions*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the basis service functions as taught by Cha et al. in the invention of Bajpai et al. This would have been obvious because the invention as taught by Cha et al. offers a time and cost efficient expert system for diagnosing problems (*page 2 lines 5-12*). Further, it is well-known in the art to implement expert system diagnostics in an enterprise resource planning system [R/3] environment (*Applicant's Specification paragraph [024]*).

As in claim 6, Bajpai teaches of a service module. However, Bajpai fails to teach of remote function calls. Cha et al. teaches of remote function calls (*page 9 lines 15-24*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the remote function calls as taught by Cha et al. in the invention of Bajpai et al. This would have been obvious because the invention as taught by Cha et al. offers a time and cost efficient expert system for diagnosing problems (*page 2 lines 5-12*). Further, it is well-known in the art to implement expert system diagnostics in an enterprise resource planning system [R/3] environment (*Applicant's Specification paragraph [024]*).

As in claim 7, Bajpai teaches of a service module, an application server, and a database. However, Bajpai fails to teach of monitoring. Cha et al. teaches monitoring of an application server and database (*page 9 lines 3-4 and 12-20*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the monitoring as taught by Cha et al. in the invention of Bajpai et al. This would have been obvious because the invention as taught by Cha et al. offers a time and cost efficient expert system for diagnosing problems (*page 2 lines 5-12*). Further, it is well-known in the art to implement expert system diagnostics in an enterprise resource planning system [R/3] environment (*Applicant's Specification paragraph [024]*).

As in claim 24, Bajpai teaches the limitations of claim 20. However, Bajpai fails to teach explicitly of basis service functions. Cha et al. teaches of basis service functions (*page 11 lines 18-24, where it is inherent in an SAP R/3 system to utilize basis service functions*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the basis service functions as taught by Cha et al. in the invention of Bajpai et al. This would have been obvious because the invention as taught by Cha et al. offers a time and cost efficient expert system for diagnosing problems (*page 2 lines 5-12*). Further, it is well-known in the art to implement expert system diagnostics in an enterprise resource planning system [R/3] environment (*Applicant's Specification paragraph [024]*).

As in claim 25, Bajpai teaches the limitations of claim 20. However, Bajpai fails to teach of remote function calls. Cha et al. teaches of remote function calls (*page 9 lines 15-24*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the remote function calls as taught by Cha et al. in the invention of Bajpai et al. This would have been obvious because the invention as taught by Cha et al. offers a time and cost efficient expert system for diagnosing problems (*page 2 lines 5-12*). Further, it is well-known in the art to implement expert system diagnostics in an enterprise resource planning system [R/3] environment (*Applicant's Specification paragraph [024]*).

As in claim 36, Bajpai teaches the limitations of claim 1. However, Bajpai fails to teach of an enterprise resource planning system. Cha et al. teaches at least the main system executes an enterprise resource planning system (*Fig. 4; page 4 lines 17-18, page 7 lines 3-10, and page 11 lines 18-24, where the R/3 system is interpreted as an enterprise resource planning system*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the enterprise resource planning system as taught by Cha et al. in the invention of Bajpai et al. This would have been obvious because the invention as taught by Cha et al. offers a time and cost efficient expert system for diagnosing problems (*page 2 lines 5-12*).

As in claim 37, Bajpai teaches the limitations of claim 1. However, Bajpai fails to teach of an R/3 system. Cha et al. teaches at least one system is implemented as an R/3 system (*Fig. 4; page 4 lines 17-18, page 7 lines 3-10, and page 11 lines 18-24*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the R/3 system as taught by Cha et al. in the invention of Bajpai et al.

This would have been obvious because the invention as taught by Cha et al. offers a time and cost efficient expert system for diagnosing problems (*page 2 lines 5-12*).

\* \* \*

5. Claims 9 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bajpai in view of Aslanian et al. (U.S. Patent No. 5,111,384).

As in claim 9, Bajpai teaches of a knowledge module and a main system. However, Bajpai fails to teach of a lexicon to distinguish versions of the main system. Aslanian et al. teaches of using a lexicon to distinguish main system versions (*page 2 lines 29-43, page 3 lines 38-43, and page 8 lines 23-38, where the knowledge base and object data structures are interpreted as a lexicon*).

It would have been obvious for a person skilled in the art at the time the invention was made to have included the version distinguishing as taught by Aslanian et al. in the invention of Bajpai. This would have been obvious because the invention of Aslanian et al. offers a time and resource efficient means of utilizing an expert system and a knowledge representation base in order to solve a problem (*page 1 lines 66-68*).

As in claim 27, Bajpai teaches of a knowledge module and a main system. However, Bajpai fails to teach of organizing versions of the main system by a lexicon. Aslanian et al. teaches of organizing versions of the main system by a lexicon (*page 2 lines 29-43, page 3 lines*

*38-43, and page 8 lines 23-38, where the knowledge base and object data structures are interpreted as organized within a lexicon).*

It would have been obvious for a person skilled in the art at the time the invention was made to have included the version distinguishing as taught by Aslanian et al. in the invention of Bajpai. This would have been obvious because the invention of Aslanian et al. offers a time and resource efficient means of utilizing an expert system and a knowledge representation base in order to solve a problem (*page 1 lines 66-68*).

\* \* \*

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bajpai in view of Herman (U.S. Patent No. 6,877,115).

As in claim 11, Bajpai teaches of a knowledge module and knowledge representations. However, Bajpai fails to teach of updating databases in an auxiliary system. Herman teaches of updating databases (*abstract, column 2 lines 38-64, where a level 2 database is interpreted as a main system knowledge module and a level 1 database is interpreted as an auxiliary knowledge module*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the database updating as taught by Herman in the invention of Bajpai. This would have been obvious because the updating of a knowledge base improves the overall

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system's ability to efficiently and responsively determine solutions to a problem (*column 2 lines 62-64*).

\* \* \*

7. Claims 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bajpai in view of Andrew (U.S. Patent No. 6,681,344).

As in claim 30, Bajpai teaches while executing any of the steps of collecting, acquiring, storing, processing and forwarding, the auxiliary system conditionally forwards problem data and solutions (*page 11 lines 19-29, where the condition is interpreted as whether or not a solution is found*). However, Bajpai fails to teach forwarding problem data and solutions in combination to the same service system. Andrew teaches of forwarding problem data and solutions in combination to a single service system (*column 3 lines 16-57*).

It would have been obvious for a person skilled in the art at the time the invention was made to have included the forwarding as taught by Andrew in the invention of Bajpai. This would have been obvious because the invention of Andrew offers a time and resource efficient means of diagnosing and solving a computer problem (*column 2 lines 20-24*).

As in claim 31, Andrew teaches the auxiliary system forwards problem data and solutions for further analysis by a human technician (*column 3 lines 16-57*).

As in claim 32, Andrew teaches the auxiliary system forwards problem data and solutions to the further computer [service system] in a format that allows analysis by an expert system in the service system (*column 3 lines 16-57*).

### *Conclusion*

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Contino whose telephone number is (571) 272-3657. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PFC  
9/5/2006



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